

REMARKS

Status of the Claims

Claims 1-11, 13-14, and 17-24 are pending in the present application, with new claim 25. Claims 1, 3, 13, 15, and 18 have been amended.

New Claim 25

New claim 25 has been added. Support for this claim is found on throughout the specification, and specifically on page 9, lines 4-13. Applicant respectfully submits that no new matter is added by this claim.

Amendments to the Specification

Applicant has amended the specification according to the comments in the Office action. Applicant respectfully submits that no new matter is added by the amendment to the specification. Withdrawal of the rejection is respectfully requested.

Response to Objections to Claims 3 and 18

Claims 3 and 18 were objected to for alleged informalities. Claims 3 and 18 have been amended to recite a "phototransistor" as suggested in the Office action. Applicant respectfully submits that no new matter is added by this amendment. Withdrawal of the rejection is respectfully requested.

Response to Rejections Under 35 U.S.C. § 102(b)

Claims 1-5, 7, 9, 10, 11, 13, 17-20, and 24 were rejected as allegedly anticipated by Sims *et al.* (US 6,380,965) (hereinafter "Sims").

Independent Claim 1

Claim 1, as amended, recites a printer for printing an image on an image receiving material provided on a backing material, said backing material having regularly spaced markings provided on the back thereof, said printer comprising: a printhead for printing the image on the image receiving material, when said printhead is in a printing configuration and said image receiving material is being pulled from a supply; a detector for detecting said markings provided on the backing material on which the image receiving material is provided while the image receiving material moves past the printhead and the image is being printed on the image receiving material; and a device for determining at least one of a spacing between two markings and a width of a marking, comparing the determined marking width and/or spacing with a respective reference value and for causing the printing to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.

Sims discloses a printer in which the speed at which print tape is moving through the printer can be detected by detecting markings on the tape. The printing speed is then varied based upon this detected tape transport speed. (Sims, col. 13, lines 12-30). The Office action concedes, however, that Sims does not explicitly disclose causing the printing to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount. The Office action attempts to find this element implicit in the specification of Sims, which states that if markings are not sensed on the tape, then no strobe signals will be sent and printing will not be performed (Sims, Column 16, lines 54-67 and Column 17, lines 1-2).

However, Sims fails to disclose "causing the printing to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least

one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” At best, Sims only stops printing when there are no markings to detect, i.e. when the tape is not being pulled from the supply, and, consequently, there is no determination of either a spacing between two markings and/or a width of a marking.

Sims discloses two further conditions in which printing may be stopped (column 16, lines 34-55). The first of these is at an end of the tape where there are no markings on the tape (Sims, column 16, lines 34-43). In this situation, there is no “determining at least one of a spacing in between two markings and a width of a marking” or “comparing the determined marking width and/or spacing with a respective reference value” because there are no markings and, therefore, there can be no determination.

The second of these conditions in which printing may be stopped is an embodiment where the pitch between markings varies significantly near the end of the tape in comparison with other portions of the tape. (Sims, column 16, lines 43-55). Claim 1 of the present application requires the determination of a spacing between two markings or a width of a marking on image receiving material having “regularly spaced marks.” This is patentably distinguishable from Sims, in which the determination is clearly based upon an irregularity in marking pitch.

Rather, the printer of the Applicant’s claims is able to ensure that high quality printouts are achieved. According to the amended claims of the present application, printing may be stopped if a printer determines that spacing between two markings and/or a width of a marking differs from a respective reference value even “as said image receiving material is being pulled from the supply and is moving past said printhead.” In other words, the Applicant’s claimed printer enables printing to be stopped in the event that a printout could be achieved, because the image receiving material is being pulled from the supply and is moving past the printhead. This is desirable because the printing would be of poor quality due to the aforementioned divergence from the reference value of tape mark spacing and/or width.

By contrast, in Sims, even if the image receiving tape is moving at a very slow speed through the printer, for example due to a partial jam, the printer of Sims will continue to print each time the markings on the tape pass the detector. Printing at such low speeds of tape transport could cause overheating of the thermal printhead and cause the printer to malfunction. The printer of the present application advantageously does not suffer from this condition.

Therefore, it is respectfully submitted that the cited reference does not disclose each and every element of independent claim 1, as amended. In particular, Sims does not disclose “causing the printing to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” For at least these reasons, independent claim 1, as amended, is patentably distinguishable over Sims. Withdrawal of the rejection is respectfully requested.

Independent Claim 13

Independent claim 13, as amended, recites a printer system for printing an image on an image receiving material provided on a backing material, said backing material having regularly spaced markings provided on the back thereof, said printer system comprising: a printhead for printing the image on the image receiving material, when said printhead is in a printing configuration and said image receiving material is being pulled from a supply; a detector for detecting said markings provided on the backing material on which the image receiving material is provided while the image receiving material moves past the printhead and the image is being printed on the image receiving material; and a device for determining at least one of a spacing between two markings and a width of a marking, comparing the determined marking width and/or spacing with a respective reference value and for causing the printing of the image to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.

As discussed above with respect to independent claim 1, Sims does not teach at least the element of “causing the printing of the image to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” For at least those reasons discussed above with respect to independent claim 1, independent claim 13, as amended, is patentably distinguishable from Sims. Withdrawal of the rejection is respectfully requested.

Dependent claims 2-5, 7, 9-11, 17-20, 22, and 24

Dependent claims 2-5, 7, 9-11, 17-20, 22, and 24 depend from independent claim 1. Therefore, each of claims 2-5, 7, 9-11, 17-20, 22, and 24 similarly recite the element of “causing the printing to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” For at least those reasons as discussed with respect to claim 1, Applicant respectfully submits that claims 2-5, 7, 9-11, 17-20, 22, and 24 are patentably distinguishable over Sims. Withdrawal of the rejections is respectfully requested.

Response to Rejections Under 35 U.S.C. § 103(a)

Claims 6 and 21 were rejected as allegedly unpatentable over Sims. Claims 8, 14, and 23 were rejected as allegedly unpatentable over Sims in view of Vleurinck et al. (US 2004/0036915) (hereinafter “Vleurinck”). Claim 15 was rejected as allegedly unpatentable over Sims in view of Petteruti et al. (US 5,267,800) (hereinafter “Petteruti”).

Dependent claims 6 and 11

Dependent claims 6 and 11 depend from independent claim 1. Therefore, claims 6 and 11 each similarly recite the element of “causing the printing to be stopped if, as said image receiving material is being pulled out of the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” For at least the same reasons as discussed with respect

to claim 1, Applicant respectfully submits that Sims lacks at least this element. Applicant respectfully submits that, similarly, any attempt to modify Sims to arrive at the printers claimed in dependent claims 6 and 11 will also lack at least this element. Thus, it would not have been obvious to one of ordinary skill in the art to adjust the printer of Sims to arrive at the printer as claimed in claims 6 and 11. Withdrawal of the rejections is respectfully requested.

Dependent claims 8, 14, and 23

Dependent claims 8, and 23 depend from independent claim 1. Therefore, claims 8 and 23 each similarly recite the element of “causing the printing to be stopped if, as said image receiving material is being pulled out of the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” For at least the same reasons as discussed with respect to claim 1, Applicant respectfully submits that Sims lacks at least this element. Applicant respectfully submits that, similarly, any attempt to modify Sims in view of Vleurinck to arrive at the printers claimed in dependent claims 6 and 11 will lack at least this element. Thus, no proper combination of the printer of Sims and the printer of Vleurinck would lead one of ordinary skill in the art to the printer as claimed in claims 8 and 23. Withdrawal of the rejections is respectfully requested.

Claim 14 from independent claim 13. Therefore, for at least the same reasons as claim 13, discussed above, Applicant respectfully submits that Sims lacks the element of “causing the printing of the image to be stopped if, as said image receiving material is being pulled from the supply and is moving past said printhead, at least one of the determined spacing and/or width differs from the respective reference value by more than a predetermined amount.” Applicant respectfully submits that, similarly, any attempt to modify Sims in view of Vleurinck to arrive at the printer system claimed in dependent claim 14 will lack at least this element. Thus, no proper combination of the printer of Sims and the printer of Vleurinck would lead one of ordinary skill in the art to the printer system as claimed in dependent claim 14. Withdrawal of the rejection is respectfully requested.

Independent Claim 15

Claim 15, as amended, recites a printer for printing an image on an image receiving material provided on a backing material, said backing material having regularly spaced markings provided on the back thereof, said printer comprising: a detector arranged to detect said markings; and a transmitter arranged to send information relating to said detected marking to a computer for processing.

The Office action concedes that Sims does not disclose “a transmitter arranged to send information relating to said detected marking to a computer for processing.” The Office action attempts to find this element in Petteruti. Petteruti teaches a printer that can be connected to a host computer (col. 3, lines 23-27) and can transmit information based on the state of the printer to the host computer (col. 3, lines 25-27). However, Petteruti does not disclose that the printer transmits messages based on its assessment of another entity, namely “said detected marking,” to a host computer. The printer of Petteruti can only transmit messages based on its own metrics of its own status to the host computer. At best, the combination of Sims and Petteruti would lead one of ordinary skill in the art to the printer of Sims with the added capability of transmitting metrics about the status of the printer to a host computer. The combination would lack the element of “a transmitter arranged to send information relating to said detected marking to a computer for processing.”

Therefore, no proper combination of Sims and Petteruti would lead one of ordinary skill in the art to the printer described in the present application. Thus, Applicant respectfully submits that independent claim 15, as amended, is patentably distinguishable over Sims in view of Petteruti. Withdrawal of the rejection is respectfully requested.

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Docket No.: 31118/DY0401

CONCLUSION

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance. Enclosed is payment in the amount of \$52.00 (by credit card authorization). In the event that any additional fees are necessary, kindly charge the cost thereof to our deposit account number 13-2855.

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Respectfully submitted,

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